Instructions for SARS Case Reporting From Local Health Departments to the California Department of Health Services Infectious Diseases Branch

The Council of State and Territorial Epidemiologists (CSTE) revised the surveillance case definition for SARS in the United States and added respiratory illness due to SARS coronavirus (SARS-CoV) to the list of nationally reportable diseases. The definition distinguishes between (1) a specific case definition for SARS-CoV disease cases that are to be reported to the Centers for Disease Control and Prevention's (CDC) National Notifiable Disease Surveillance System **and** (2) a sensitive, nonspecific case definition for SARS '**reports under investigation**' (RUIs) that are not yet determined to be SARS-CoV disease.

Because of the public health impact of SARS-CoV and its potential reemergence, the California Department of Health Services (CDHS) is requesting that local health departments (LHDs) report to CDHS: (a) SARS-CoV disease cases that meet the CSTE case definition for national reporting, **and** (b) SARS RUIs, until requested otherwise.

1. What is the case definition for SARS-CoV disease that will be used to report cases through the National Notifiable Disease Surveillance System?

- Confirmed SARS-CoV disease cases (i.e., those with clinically compatible illness that are laboratory confirmed) and
- Probable SARS-CoV disease cases (i.e., those with severe respiratory illness and a chain of transmission that can be linked to a laboratory-confirmed case).

2. How are SARS RUIs defined?

SARS RUIs are defined using criteria described in the revised U.S. case definition for SARS (http://www.cdc.gov/ncidod/sars/casedefinition.htm). Classification for SARS cases depends on clinical, epidemiologic, laboratory, and exclusion criteria. The clinical criteria are the same as last year but have been renamed (i.e., early, mild-moderate, severe). The epidemiologic criteria include **NEW** categories: 1) possible exposure and 2) likely exposure. The laboratory criteria were revised to include advances in testing technology. The case-exclusion criteria were changed to allow for exclusion when a serum sample collected > 28 days after onset of symptoms is negative for SARS-CoV antibodies. **It is very important to become familiar with the criteria used for SARS-CoV disease and RUI classifications; they are described fully in the revised U.S. case definition**. SARS RUIs are defined using the following matrix of clinical and epidemiologic criteria:

	Clinical Criteria for degree of illness[1]		
Epidemiologic criteria[1]	Early	Mild to moderate	Severe
Unknown	NA	NA	SARS RUI-1
Possible	NA	SARS RUI-2	SARS RUI-3
Likely	SARS RUI-4	SARS RUI-4	Probable case of SARS-CoV disease

[1]Specific epidemiologic and clinical criteria are defined in the CDC revised U.S. case definition for SARS.

Following laboratory testing, SARS RUIs may be reclassified (e.g., assigned a final classification) using the following matrix:

	Laboratory testing results[2]		
Initial SARS reporting category	Negative	Positive	Not performed
SARS RUI1-4	Excluded	Confirmed SARS-CoV disease	Undertermined; will remain RUI1-4
Probable SARS CoV disease	Excluded	Confirmed SARS-CoV disease	Probable SARS CoV disease

[2]Specific laboratory criteria are defined in the CDC revised U.S. case definition for SARS.

3. Which SARS RUIs should LHDs report to CDHS?

(A) In the ***absence*** of person-to-person transmission of SARS-CoV in the world (referred to as Level 0 in *CDHS Surveillance and Response Planning Guide for California Health Care Facilities* http://www.dhs.ca.gov/ps/dcdc/disb/sars.htm), notify CDHS of **SARS RUI-1s** which would include:

- Patients hospitalized with unexplained pneumonia (unexplained pneumonia cases are those for which no alternative diagnosis has been made within 72 hours of hospitalization) who answered yes to at least one of the Level 0 epidemiologic risk factors. The Level 0 epidemiologic risk factors include:
    - Travel within 10 days of onset to Hong Kong, Taiwan, or China or close contact with an ill person who has traveled to Hong Kong, Taiwan, or China;
    - Employment in an occupation associated with risk for SARS-CoV exposure (e.g., health care worker with direct patient contact, worker in a laboratory that contains live SARS-CoV);
    - Close contact with person(s) recently found to have radiographic evidence of pneumonia without an alternative diagnosis.
- Any cluster of unexplained pneumonia cases.
- Any positive SARS-CoV lab finding**.** In the absence of person-to-person SARS-CoV transmission in the world, **any SARS-CoV positive test result should be phoned to CDHS immediately for expedited confirmation and follow up.**

(B) In the ***presence*** of person-to-person transmission of SARS-CoV in the world but not in the local community (referred to as Level 1 in the *CDHS Surveillance and Response Planning Guide for California Health Care Facilities*), notify CDHS of **SARS RUI 1-4s** which would include :

- Patients with fever or respiratory symptoms who answered yes to at least one of the Level 1 epidemiologic risk factors. Level 1 epidemiologic risk factors include:
    - Recent close contact with persons suspected of having SARS;
    - Travel to locations with suspected recent SARS transmission or close contact with a person with respiratory illness who had exposure to locations with suspected recent SARS transmission.

  The strategies and scope of surveillance activities used to identify patients with fever or respiratory symptoms will vary by the extent of SARS activity in neighboring communities and in local health care facilities. Examples of these strategies are listed in the *CDC Public Health Guidance for Community-level Preparedness and Response to SARS Supplement B: SARS Surveillance and Supplement C: Preparedness and response in health care facilities* http://www.cdc.gov/ncidod/sars/sarsprepplan.htm .
- Any adult patient hospitalized with unexplained pneumonia who answered yes to at least one Level 0 epidemiologic risk factor.
- Any cluster of unexplained pneumonia.
- Any positive SARS-CoV lab finding.

(C) In the ***presence*** of person-to-person transmission of SARS CoV in the community (referred to as Level 2 in CDHS Surveillance and Response Planning Guide for California Health Care Facilities), SARS surveillance activities will change depending on the location and extent of SARS transmission (especially if there is unlinked transmission). CDHS will provide specific, revised SARS surveillance, screening, and reporting recommendations at that time.

4. How should SARS case report forms be transmitted and where should forms be transmitted to? CDHS has drafted a California-specific report form entitled "California Case Report Form for SARS-like illnesses" that can be used to report confirmed and probable SARS-CoV disease cases and SARS RUIs during all levels of SARS activity. **This form replaces the CDC form (you do not need to fill out the CDC form if you submit the CDHS form).** Pages 1-4 should be completed and faxed to:

Gillian Hamilton, MPH
Epidemiologist
CDHS Infectious Diseases Branch
510-540-2570 (fax) 510-540-2566 (phone)

5. When should LHDs transmit SARS case report forms to CDHS?
LHDs should forward confirmed and probable SARS-CoV disease and SARS RUI report forms within one working day or as soon as practical (e.g., when initial demographic, clinical, and risk factor information has been collected) using the enclosed CDHS report form. **CDHS should be contacted by telephone prior to ordering SARS testing so that CDHS may provide assistance in determining whether SARS lab testing is appropriate.** Specimens sent to the state's Viral and Rickettsial Disease Laboratory for SARS testing will **NOT** be processed if a California SARS ID number has not been assigned to the case by CDHS staff.

6. Will the LHD have to report confirmed and probable SARS-CoV disease cases through a separate electronic reporting system to fulfill the National Notifiable Disease Surveillance System reporting obligation?
No. CDHS has developed an electronic reporting system that will be used to report SARS cases to CDC. All report forms that are faxed by the LHD to CDHS will be entered into this system. Reports that meet the CSTE criteria for a confirmed or probable case will be electronically transmitted by CDHS to CDC using this system. This system obviates SARS-CoV disease reporting through other electronic reporting systems in California. In other words, once you have faxed a completed form to CDHS and the form is reviewed and accepted, your reporting obligation will have been fulfilled.

7. What if I am still unclear about the case definition or about how to classify a case as SARS RUI 1-4 or have any other questions on SARS?
Classification of SARS RUIs and SARS RUI reporting can be confusing. Telephone consultation on any SARS-related issue, including reporting or case management, is available to LHD staff. For telephone consultation, contact Jon Rosenberg, M.D., Gillian Hamilton, M.P.H., or Kate Cummings, M.P.H. at 510-540-2566.

For additional background on SARS RUIs, you can view the CDC case definition at:
http://www.cdc.gov/ncidod/sars/casedefinition.htm and
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5249a2.htm ,
and view the CSTE website at: http://www.cste.org/ .

For other SARS-related information and background, see the CDHS website:
http://www.dhs.ca.gov/ps/dcdc/disb/sars.htm ; the CSTE website http://www.cste.org/ ; and the CDC SARS website http://www.cdc.gov/ncidod/sars/updatedguidance.htm .